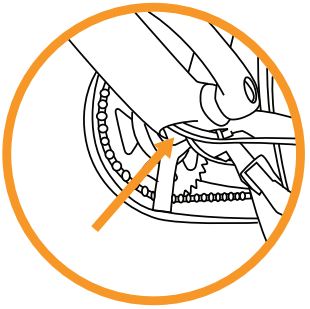
I AM Electric

MANUAL
ELECTRIC BICYCLES

qwic

FRAME NUMBERS (VIN)
Frame numbers are to be found on the frame underneath the crankshaft, pointed out in the image below. With this frame number the bike can be checked.



⚠ Warning! Your bike may look different than the images in this manual.

Colofon:

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Product manual electric bicycles, v1.0

Congratulations!

You now are the proud owner of a QWIC electric bike. The bike is equipped with electronic pedal assistance, which will give riding your bike a new dimension. The pedal assistance makes riding the bike more comfortable and lighter than ever. Whether you use the bike to travel to work, transport heavy luggage or just for recreational fun, you will always feel some extra support. With the reliable, durable and user-friendly pedal assistance, riding your bike will no longer be a hassle, but something you enjoy!

There is a big chance that you have not owned an electric bike before. This is why QWIC supplies you with an extensive user's manual. We recommend you take your time to read through everything, especially the warranty information.

For more information and latest news have a look on our website www.QWIC.nl

Enjoy your new bike!

Kind regards,

E info@qwic.nl
U www.qwic.nl

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1 Control panel Trend[2], Urban and Smart-E[3]

1.1 Information on the display

The display will only work when the battery is attached to the bike. With the Smart-e you also have to switch the battery-lock to the 'ON' position. Switch the control panel on with the 'ON' button (button 1).

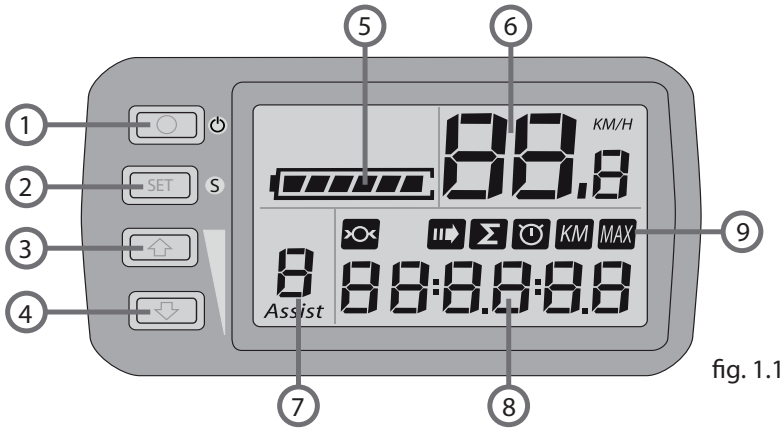

fig. 1.1

1.	ON/OFF + display lights	5.	Battery indicator
2.	SET	6.	Speed
3.	UP	7.	Pedal assistance programmes (1 tot 6)
4.	DOWN	8.	Menu display
		9.	Menu symbols

1.2 Menu's

Press 'SET' (button 2) and use the arrows (button 3 and 4) to choose from one of the menus. The display will show the following menus:

Total distance
Total amount of traveled distance. Resetting is not possible.

Timer
Traveled time since last reset. To reset press 'Down' for 2 seconds.

Trip afstand
Traveled distance (km) since last reset. To reset press 'Down' for 2 seconds.

Maximum speed
Maximum traveled speed

Shuffle mode
The 4 options above displayed in shuffle mode.

Tire size
Press 'SET' for 10 seconds and adjust tire size using the 'Up' and 'Down' buttons.

1.3 Adjusting the pedal assistance

Use the arrows (button 3 and 4) to choose from 7 pedal assistance programmes (0-6). Level 6 gives the most powerful assistance, whereas 0 means that the pedal assistance is off. Keep in mind that using a more powerful pedal assistance programme will discharge the battery quicker compared to a lower programme.

1.4 Powerlaunch

Use Powerlaunch when driving off. This will let you cycle for about 6 km/h without having to peddle. Sit on the bike and, with both hands, grab the handlebars. Push the 'UP' button but do not peddle. After a few seconds the engine will start. As soon as you release the 'UP' button the Powerlaunch will be turned off.

⚠ Warning! Only use Powerlaunch with both hands firmly gripped around the handlebars. Powerlaunch is very powerful and dangerous when not seated firmly on the bike.

1.5 Display lights

Press the ON/OFF button to switch the display lights on. Press ON/OFF again to switch off.

1.6 Switch off

Press the ON/OFF button for 2 seconds to turn off the system.

⚠ Warning! You can only use the control panel when the battery is attached to the bike. On the Smart-E the batterylock should also be in 'ON' position.

⚠ Warning! If the battery is in 'OFF' or you are using the bike without the battery, random merits may be displayed because the engine drives small currents of electricity. Ignore everything that is displayed when the system is off.

2 Control panel Base[2]

2.1 Information on the display

Make sure the ignition lock of the battery is on 'ON'. Switch the control panel on with the 'ON' button (button 1).

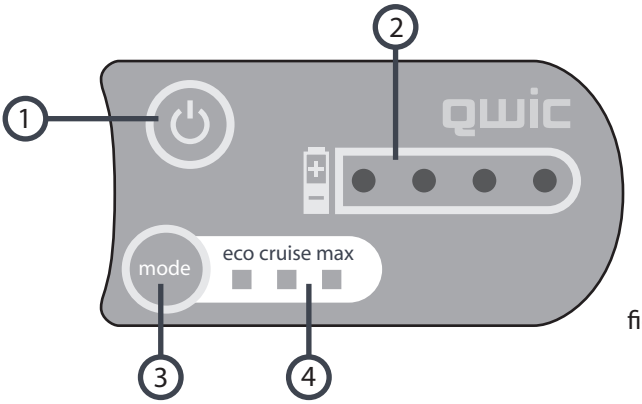

fig. 2.1

1.	ON/OFF
2.	Battery indicator
3.	Adjust pedal assistance
4.	pedal assistance programme

2.2 Adjusting the pedal assistance

Use the 'mode'-button (button 3) to choose from 3 assistance programmes. The 3rd programme is the most powerful pedal assistance. Keep in mind that the battery discharges quicker when using a more powerful assistance programme.

3 Battery

3.1 Range (optimum range)

What size is the tank in my electric bicycle?
The total range of your e-bike without charging it in the mean time, is called the optimum range. You would probably like to know what the maximum distance is that you may travel with 1 full battery. This is not easily calculated as the capacity of the battery is influenced by many factors.

Capacity battery
Batteries are often being compared based on capacity (Ampere-hour). This does not give the right image of capacity, as the battery pack is also influenced by battery voltage while being discharged. A single display of '10 Ah) does not say anything about the capacity of the battery and is misleading.

The best way of comparing batteries is to look at the amount of watt hour (Wh) delivered by the battery. The amount of Wh regards the capacity of the battery pack while being discharged, as well the total amount of density of the pattery pack. The higher the amount of Wh, the higher the optimum range is.

For example: **A Trend battery needs a capacity of 10 Ampere/hour (Ah) and an electric tension of 36 Volt (V). This battery provides: 10 Ah x 36 V = 360 Wh.**

QWIC supplies bikes with 216 Wh and 360 Wh batteries. Have a look on page 27 for an overview on specifications per bicycle.

Optimum range of QWIC electric bicycles
The capacity of QWIC bikes is between 216 Wh and 360 Wh. Using the scheme on page 27, you may easily compare different specifications off all the bikes.
The next table displays an indication of the expected optimum range based on the eco-programme.

Optimum range indication of QWIC e-bikes.

Amount of Wh	Expected optimum range
216	40 en 60 kilometer
360	60 en 100 kilometer

The most important thing is to realise which factors may influence the optimum range. You personally influence the optimum range as well, please ask your dealer for personal advise.

Influences on optimum range:
- Total weight (weight bicycle + cyclist + load)
- Resistance (wind force, tire tension, gearing, quality of road surface, inclination)
- Level of pedal assistance
- Driving style (switching gears and speed)
- Outside temperature
- Age of the battery (battery capacity decreases with time)

3.2 Removing and taking out the battery

On the left hind side of the battery a battery lock is located. Using this you may lock the battery.

To unlock the lock: Put the key into the lock and twist left (3.1) Use the handlebar on the backside to pull the battery from underneath the luggage carrier (3.2).

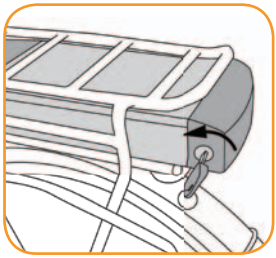

fig. 3.1

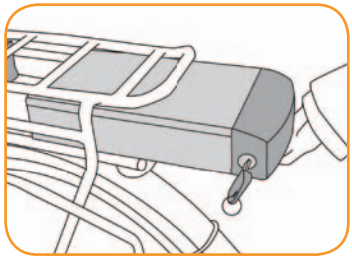

fig. 3.2

⚠ Warning! Remove the key after placing the battery back, preventing loss and/or theft of the key and battery.

3.2 Charging the battery

The battery is rechargeable with the charger (3.5). The battery can be charged while placed in the bicycle or when removed. The charging point is covered with a twistable plastic cover (3.4).

Trend[2] en Smart-E[3] The charger will display an orange light when charging(3.6). When this light turns green, the battery is fully charged.

URBAN en Base[2] While charging the charger will display a red light (3.6). When this light turns green, the battery is fully charged.

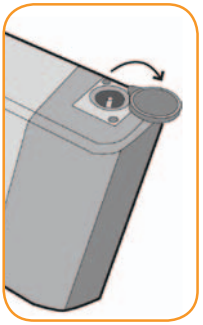

fig. 3.4

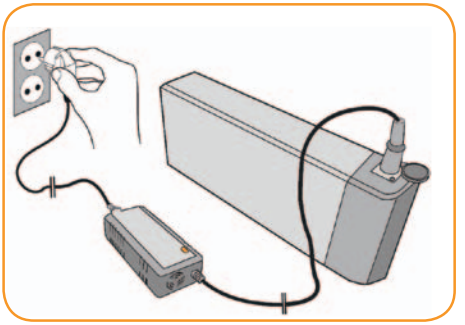

fig. 3.5

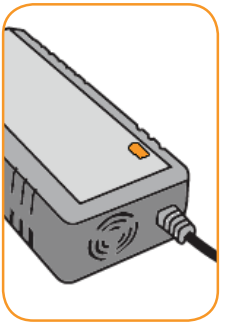

fig. 3.6

⚠ Warning! Remove the charger when battery is fully charged. This prevents the life cycle from being decreased.

⚠ Warning! The battery may be damaged when not being used for a longer period of time. Make sure you charge the battery every 3 months for half an hour.

⚠ Warning! When the bike is out of use for a longer period, we recommend you remove the battery from the bike.

⚠ Warning! Only charge the battery in dry, ventilated areas.

⚠ Warning! The battery is not protected against moist and/or bumps caused by dropping it.

⚠ Warning! When the battery is completely empty, you need to charge it immediately. When cells are empty for a longer period of time, these may be damaged.

3.3 What you should know about your battery

- Never connect the positive pole of the battery to a negative contact.
- The battery is somewhat waterproof and withstands a rain shower. There is no problem with using you bike in bad weather circumstances. Do not expose the battery to large quantities of water.
- Electricity is a green supply of energy and does not effect the environment heavily. However, you do have to hand in your battery after its life cycle to be recycled.
- Your battery's achievement will decrease at low temperatures*
- The battery pack will last about 1000-1200 times of full charging, under ideal circumstances. The achievements will decrease over a matter of time and the battery will have to be replaced after a certain time.
- Do not expose the battery to higher temperatures (>50°C), like heating, direct sunlight and fire.Haal de batterij niet uit elkaar. Raadpleeg de dealer bij problemen.
- Do not disassemble the battery. Ask your dealer for advise.
- When not using your battery for a longer period of time, store the battery in a cool, dry and dark place.

* All mentioned specifications apply to a temperature of 25°C. Rule of thumb is that with every 1°C temperature decrease, the capacity decreases with 1%.

4 Pedal assistance

4.1 What is pedal assistance?

The bike has been equipped with electric pedal assistance. The engine adds to your own power, which enhances your achievements without tiring. The action of the pedal assistance depends on the speed of the rotation of the pedals.

When there is no paddling, the engine does not work. When taking off, the power delivered by the engine is high to it is easier to drive off.

Switching the pedal assistance on and off

When switching the control board on the pedal assistance is on its last used level. Using the arrows the degree of power delivered by the engine is easilt adjustable. To turn the pedal assistance off, simply put it on '0' using the arrows. Keep in mind that the battery empties out quicker when delivering more power (fig. 4.1)

⚠ Warning: The tire tension, weight of the cyclist, environment as well as the cycling-behaviour influence the radius.

Fig.4.1 Influence on the pedal assistance program on the radius.

4.2 What you should know about pedal assistance

- The powerful support will make it easier to reach higher velocity than you are used to. Try the bike in a quiet environment with less traffic to get used to your new bike.
- Getting up on your e-bike is different than on a normal bike. Driving off will be easier and go faster. Get used to riding your bike before driving it in a busy environment. We recommend to use assistance mode 1 for taking off with your bike.
- The bike will not cause extra resistance when the pedal assistance is switched off. This way you will always be able to use the bike as a normal bike.
- The pedal assistance depends on the power delivered by the cyclist. When more power is delivered, the pedal assistance will support more.
- The pedal assistance has been legally limited to a speed of 25 km/h. This means that when a speed of 25 km/h is reached, the pedal assistance will slowly decrease to zero.
  The radius of the bike depends on environmental circumstances. The most important factors are: weight of the cyclist, speed, inclination, tire tension, backwind, switching gears and breaking and outside temperature. At extremely low temperatures the radius is influenced negatively. Keep this in mind.

Warning: When taking off the pedal assistance will increase the power delivered by the cyclist. Do not take off to enthusiastically.

Warning: Switch pedal assistance off, when getting off the bike.
Never walk with the pedal assistance switched on.

Warning: Squeeze both brake levers when standing still with the pedal assistance switched on.

5 How to fold up the Smart-E³

5.1 Action plan folding up the Smart-E³

1. Fold in kickstand
2. Rotate right paddle horizontally to the front
3. Unlock seat post clamp(fig. 5.1, fig 5.2) and fold in the frame.
4. Unlock clamp in head tube(fig. 5.3 - fig. 5.4) and fold the steer in front of the saddle until it leans against the right side of the bike. (provide the cables for pinching around the sadlle).
5. Let down the saddle
6. Optional: Fold in the peddles.
7. Optional: Push in the steer stem (fig. 5.5)

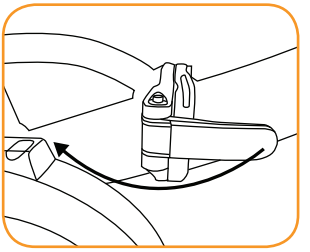

fig. 5.1

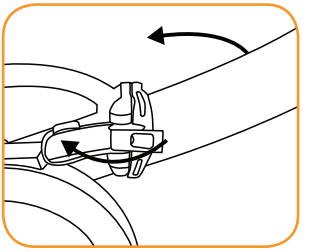

fig. 5.2

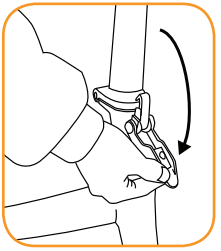

fig. 5.3

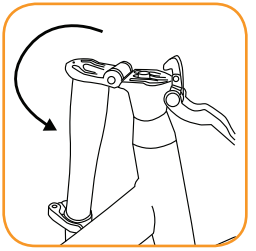

fig. 5.4

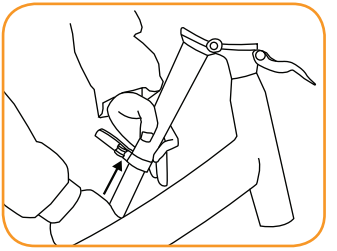

fig. 5.5

6 Saddle

6.1 Desired seating height

The seating height is the distance between the seating part of the saddle with the paddle down. The seating height is correct when your knee is slightly bent while you have your foot on the pedal (6.1). Do not hesitate to seek advise from your dealer!

⚠ Warning! If you are able to place both feet flat on the ground, your saddle is too low.

6.2 Adjusting the saddle

The height of the seat is adjustable by unscrewing the hex bolt on top of the seat post (6.2).

⚠ Warning! The security line should not be visible after adjusting the saddle.

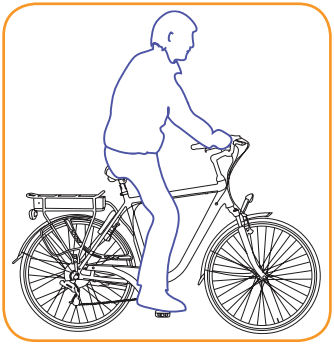

fig. 6.1

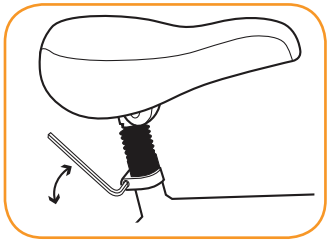

fig. 6.2

The saddle can be rotated and adjusted on the front and backside (6.3). To do this, unscrew the nut located on the bottom of the saddle (6.4). Do not forget to screw the nut back on.

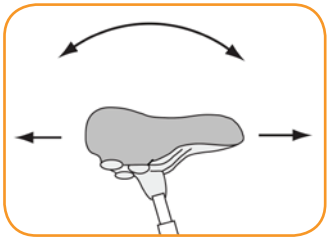

fig. 6.3

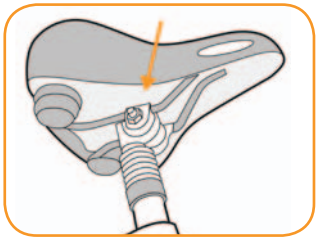

fig. 6.4

7 Steer

7.1Desirable steer tuning

Rule of thumb for deciding the space between steer and saddle is that the rider has to be able to touch the steer with his fist while leaning on the saddle with his elbow. This rule of thumb is only a recommendation as personal preferences may be different. Mind that a too big of a distance between saddle and steer may cause neck, back and shoulder pain. QWIC recommends tuning the steer and saddling with help of the dealer.

7.2 Adjusting the steer

Adjusting the height (7.1A), the depth (7.1B) and the heeling angle (7.1C) creates the opportunity to tune the steer in any posture.

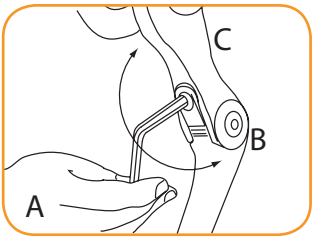

fig. 7.1

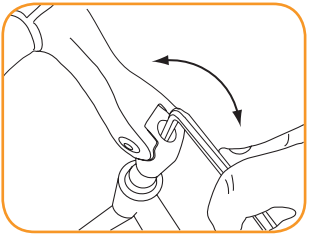
fig. 7.2

To change the height of the steer, remove the plastic cover. Then unscrew the expander bolt using a hex key (7.2). Screw on the bolt after you have adjusted the height (7.3). Carefully check whether the steer is firmly secured.

The distance between steer and saddle is adjustable by using a hex key to unscrew the expander bolt on the bottom of the steer. Screw the bolt back on after you have adjusted the space between the saddle and steer and check whether the steer is firmly secured.

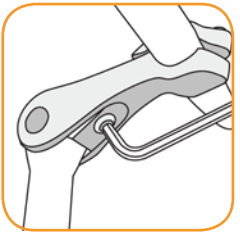
fig. 7.3

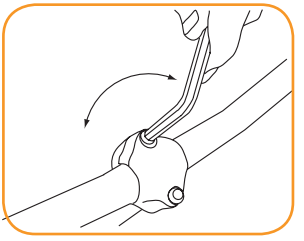
fig. 7.4

It's also possible to adjust the steering wheel ever more by changing the angle to your personal preferences. Unscrew the (front-foldable) bolt just a twist with a hex key (7.4). After adjusting the steering wheel in the right position, carefully screw the bolt back on. If you have a QWIC Trend bicycle, you adjust the steering wheel by unfolding the clamp. Slide down the security button(7.5A), to unfold the clamp (7.5B). Now you can easily adjust the angle of your steering wheel (7.5C) and secure the clamp. Finally, check whether your steer is firmly secured.

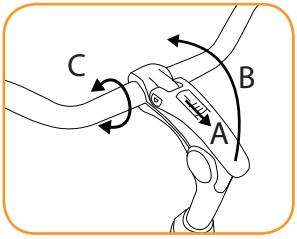

fig. 7.5

8 Lighting

8.1 Switching lights on and off

The bike is equipped with PowerLED lighting on the front as well as on the back side. Both lights have their own batteries and switches. See 8.1 – 8.4 on how to work the lights.

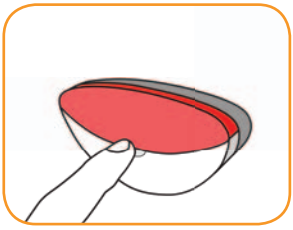
fig. 8.1

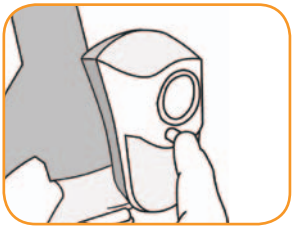
fig. 8.2

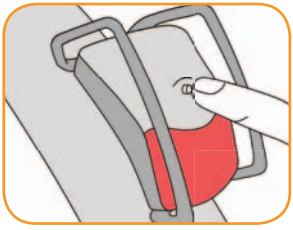
fig. 8.3

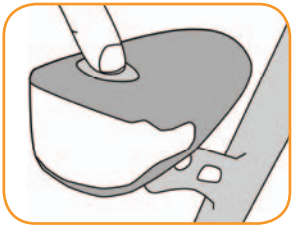
fig. 8.4

9 Brakes

9.1 Desired alignment brakes (V-brakes)

The brakes are to be aligned so when squeezing the handle bar for a quarter (9.1), the complete surface of the calliper brakes are pushed to the rim. (9.2)

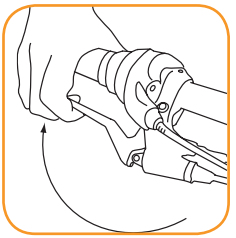

fig. 9.1

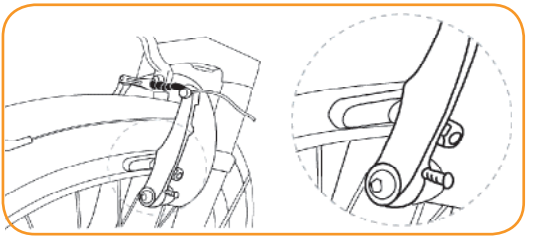

fig. 9.2

9.2 Coarse tuning brakes

When the alignment of the brakes shows a big deviation to the desired alignment, you will first have to adjust the coarse tuning of the brakes. The coarse tuning of the brakes can be adjusted by using a hex key to unscrew the cable clamp bolt. Next you will be able to use thumb and index finger to squeeze the brakes to the desired space. (9.4) Make sure the brake cord stays under the clamp bolt and then secure the clamp bolt by twisting.

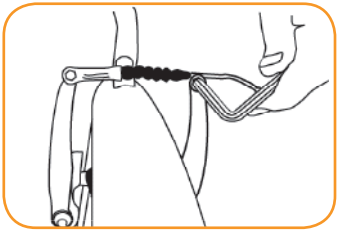

fig. 9.3

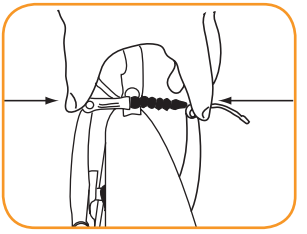

fig. 9.4

9.3 Brake adjustments

Using the cable bolt(secured there where the brake cord leaves the brake lever) you're able to adjust the brakes. By twisting the cable bolt inwards the tension on the cord is released and by twisting it outwards tension is enlarged (9.5).

9.4 Replacing calliper brakes

The calliper brakes should be replaced when the indentation have worn off (9.6)

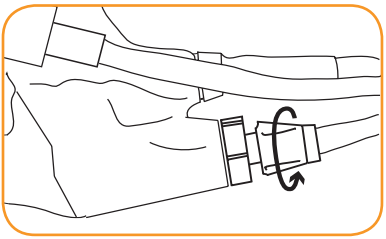

fig. 9.5

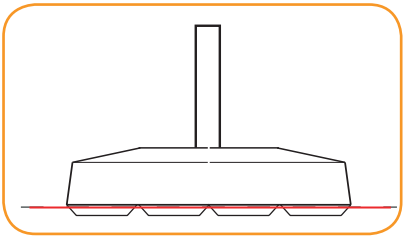

fig. 9.5

To replace the calliper brakes, you need to twist the cable bolt inwards, causing the tension on the brake cable to be released (9.5). Then, using your thumb and index finger, you squeeze the brakes (9.4) and remove the brake cable (9.7). You now have sufficient space to unscrew the calliper brake's bolts (9.8). Do not forget to tune your brakes after you have replaced the calliper brakes.

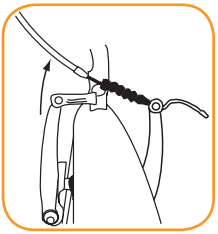

fig. 9.7

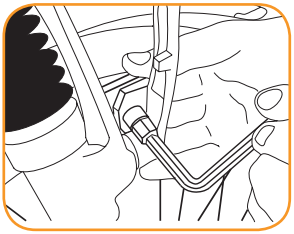

fig. 9.8

10 Tires

10.1 Desired tire tension

The tire tension influences the optimum range and the comfort of your bike. It is advisable to always inflate your tires to a level that will allow you to just indent with your thumb. The rim of the tire indicates the maximum tire tension. The tire tension is expressed in Bar. QWIC recommends to use a bike pump equipped with a tire pressure indicator when inflating your bike.

⚠ Warning! Deflated tires will drastically decrease the optimum range.

11 Gears

11.1 Switching gears

Every bike has 3 to 7 gears. The gears are to be operated when riding the bike by twisting the right side handlebar (10.1). Do not change more than 1 level at a time.

Trend^2	Shimano Acera 7 (derailleur)
Trend^2 NX7	Shimano NX 7 (hub gears)
URBAN	Shimano NX 7 (hub gears)
Base^2	Shimano Altus 7 (derailleur)
Smart-E^3	Shimano Acera 7 (derailleur)
Smart-E^3 URBAN	Shimano NX 3 (hub gears)

fig. 11.1

Use of the gears: fig 11.1

Hub gears: You can always change gears, even when standing still.

Derailleur gears: Do not change gears when standing still and do not paddle backwords while changing gears.

12 Bike lock

12.1 Lock instructions

Your bike is equipped with a ART certified frame lock. Turning the key right and then pushing down the lock's brace will lock the frame lock. When the brace reaches the lowest position, pull out the key.

In order to insure your bike you will need the following specifications:

- Brand and type	QWIC, electric bicycle +bicycle name
- Framenumber	[your unique frame number]
- Brand and ART certified lock type	Trelock, RS440
- Lock number / access number	MBT4022
- Keynumber	[unique key number]
- Date of purchase	[date of purchase]

The Smart-E^3 electric foldable bicycle is supplied without a frame lock.

13 Maintenance

13.1 Getting your bicycle serviced

QWIC recommends to have your bike regularly checked with your dealer. It is advisable to have your first check-up with the first 3 months and the second maintenance should take place after 1 year. Please keep in mind that with regular check ups, damage and therefore costs will be prevented. Of course you can add to that by taking note of the following tips:

13. 2 General maintenance

1 Check tire pressure
2 Check brake wear and tear, minor adjustments
3 Clean paddling sensor with sponge and warm water.
4 Grease chain
5 If spokes are bent or damaged, immediately have it repaired by the dealer.

13.3 Cleaning

When cleaning the bike, first remove dirt with a brush or cloth bevore washing with warm water. This will make your bike look as good as new! Regularly cleaning your bike will improve its life-span. Be careful not to use excessive amounts of water in the battery area. The sensor (near the crankshaft) should be clean from dirt.
Never use a high-pressure sprayer!

13.4 Treatment

Complementary to regulary cleaning your bike, we recommend to directly take care of some parts after cleaning. We advise to grease all chromed parts, plain aluminium and stainless-steel parts with Vaseline to prevent from oxidation (rust). Moving elements require grease/oil. It is advisable to grease chain, cogwheel and spindles on a regular basis. Your dealer can do this for you.

13.5 Torque wrench

Tabel 2: Torque wrench	
Handlebar bolt	12 - 15 Nm
Handle bar expander bolt	10 - 12 Nm
Saddle pin bolt/nut M8	15 - 20 Nm
Crank bolt steel	40 - 45 Nm
Crank bolt aluminium	40 - 45 Nm
Headtube bolt/nut	17 - 24 Nm
Rear hub bolt without motor (nexus)	35 Nm
Front hub bolt without motor	35 Nm
Front hub bolt (motor)	40 - 45 Nm
Rear hub bult (motor)	40 - 45 Nm

13.6 Instructions for use

- Check for damage
- Assemble all parts (steer, mudguards, pedals, luggage rack, saddle) Make sure all adjustable parts are tuned.
- Adjust tire pressure
- Adjust brakes symmetrically, making sure enough braking power is generated.
- Tune derailleur, check if all gears run smooth.
- With all Nexus models: Adjust chain pressure.
- Secure tire nuts.
- Check spokes and tires on small deviations and spoke pressure. If necessary adjust.
- Check electronic system (display, bracing, different settings, lights, battery, charger)
- Spray moving elements (brake joints, derailleur, biking lock etc) with silicone spray.

13.7 Maintenance

1st maintenance - 250km or at 3 months

- Check weels and tires (bent spokes, spoke tension, tire tension, profile of tire)
- Check - and secure if necessary - all attachments.
- Brakes: Check calliper brakes and tune cord tension. Check brakes system
- Check headtube for backlash. Check steering pen and if necessary adjust.
- Greasing: Clean chain and grease with Teflon spray or silicone spray.
- Electric system: Charge battery for 5 hours, clean paddle sensor with warm water and a sponge. Treat contacts with contact spray. Check if everything runs smoothly.
- Derailleur: Check if all gears run smooth, if not adjust.

2nd maintenance – 1000 km – or after 1 year

3rd maintenance – 2000 km – or after 1 year

4rd maintenance – 3000 km – or after 1 year etc.

Etc.

Visit			Service visit	Stamp/ initials
1	Date: Milage: Mechanic:		__/__/____	
2	Date: Milage: Mechanic:		__/__/____	
3	Date: Milage: Mechanic:		__/__/____	
4	Date: Milage: Mechanic:		__/__/____	
5	Date: Milage: : Mechanic:		__/__/____	
6	Date: Milage: : Mechanic:		__/__/____	
7	Date: Milage: : Mechanic:		__/__/____	
8	Date: Milage: Mechanic:		__/__/____	

12.3 Check-up

Regularly check:

- Whether the battery is charged
- Whether the battery is charged
- Are the brakes still working as they should be? Are the calliper brakes, nuts and bolts still secured? Are the cords undamaged? Is the braking surface clean and grease-free? Are the calliper brakes not wearing off?
- Is my bike adjusted correctly? Are the saddle and steer not exceeding the maximum height? Is the angle of the steer and saddle comfortable? Is my steer lined to the front weal?
- Are my handles still secured?
- Is there enough tension on the spokes? Are any spokes broken or bent?
- Tire pressure and profile.
- Are my steering pen and saddle still secured? Is there backlash in my wheels?
- Are the lights working? Am I clearly visible in the dark? Are the reflecting areas clean? Are the reflecting stripes on my tire visible and clean?
- Is the pedal assistance and gear system working the way it should be?
- Is the chain pressure correct?
- Is it time to clean my bicycle?
- Does my bicycle need maintenance?

14 Warnings

- Carefully read through this user manual and follow the instructions given.
- When charging the battery, only use the appropriate charger.
- Do not use the battery for any device other than your e-bike.
- Do not clean your bike using a high-pressure sprayer as this may cause damage
  to the electronic parts of the bike. Your warranty will expire.
- Inappropriate use of the bike may cause damage to you or others. Your warranty will expire.
- Do not use any battery packs other than the batteries supplied by QWIC. Do not insert any objects into the battery charger and do not expose the battery, charger or electronics to water or other liquids.

Warranty card

Please fill out your warranty card at: www.qwic.nl/garantiekaart.

Uitvoering

Dr = Derailleur Nx = Nexus
F = Female M = Male

	Base[2]	Trend[2] Dr	Trend[2] Nx	Urban	Smart-e[3] Dr	Smart-e[3] Nx
Range*	Max 60 Km	Max100 Km		Max 60 Km	Max 70 Km	
Detachable li-ion battery	✓	✓		✓	✓	
250W intelligent elektric hub motor	✓	✓		✓	✓	
Power programs	3	6		6	6	
Gear	Shimano Altus 7-speed	Shimano Acera 7-speed	Shimano Nx 7	Shimano Nx 7	Shimano Acera 7-speed	Shimano Nx 3
Tire sizes	38-622 (700-38C)	42-622 (700-40C)		50-622 (700-48C)	47-406 (20-1.75)	53-406 (20-1.75)
Saddle	Gel	Gel		Leather	Gel	Leather
Sprung seatpost	✗	✓		✓	✗	
Sprung front fork	✓	✓		✗	✓	✗
LED lighting	✓	✓		✓	✓	
lightweight aluminum frame	✓	✓		✓	✓	
ART- certified frame lock	✓	✓		✓	✓	
Sizes	F: 48	F: 48 F: 55 M: 54	F: 48 F: 55 M: 54 M: 64	F: 48 F: 55 M: 54	n.v.t.	
Colours	Black-Silver	Grey-Blue	Gre y-Purple	Female: White Male: Black	White-Green	Black-Grey
Total weight bicycle	24.5 kg	26.8 kg	27,8 kg	26.2 kg	23.2 kg	
Battery weight	3.3 kg	4.2 kg		3.3 kg	3.6 kg	
Brakes	Shimano v-brakes	Shimano v-brakes	Voor: Shimano v-breaks achter: rollerbrakes	Voor: Shimano v-brakes achter: rollerbrakes	Shimano V-brakes	Voor: Shimano V-brakes achter: rollerbrakes

IAM Electric

Your dealer:

qwic

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1032KA Amsterdam

E. info@qwic.nl
www.qwic.nl

FSC